

REMARKS

A separate letter has been addressed to the Chief Draftsman to correct the drawings as shown in red on Figs. 1 and 2.

Claims 8-20 are in this application.

Claims 8-20 have been amended to overcome the 35 USC 112 problems and to improve the claims.

Roller-burnishing has been set forth in US patent 6,056,263 column 2, line 61 through column 3, line 44 which has been incorporated herein by references. Since the patent is assigned to the same assignee as the present patent application, applicants knew of the roller-burnishing device, therefore it was prior knowledge to applicants.

The specification has been amended to correct the record and to include the roller-burnishing tools.


Reconsideration of the rejection of claims 8-20 under 35 USC 102b over Ineson or in the alternative under 35 USC 103a as obvious over Ineson in view of Morishita is respectfully requested. Ineson sets forth a metal motor housing connected to a metal gear housing by use of four bolts 48 as shown in Fig. 1. Fig. 2 shows a groove in which an inwardly turned shoulder rests. Applicants fail to find a teaching of an annular groove in which an annular bead 22 is stamped out of the motor housing 13 by roller-burnishing. Applicants connect the metal motor housing to the metal gear housing without any screws such as shown and taught by Ineson.

In addition, in Ineson the motor housing is enclosed by a sheath 66 of plastic material (see column 4, lines 45-47 and column 5, lines 4-10 and lines 19 and 20), which is made by injection molding and also engages an encompassing groove in the

front cap (18). It should be noted that this annular groove (74) is located not in the gear housing but in the motor housing, because column 4, lines 10 and 11 state that the motor housing begins in the back face (42r) of the flange (42). Quite aside from this, however, no indication can be found in Ineson of combining a motor housing and a gear housing with one another by roller-burnishing, because only workpieces made of metal can be roller-burnished. In contrast to this, the sheath (66) of Ineson is made from plastic, and this plastic flows into the annular groove (74) in the injection molding process without requiring an external force for deformation. In contrast to this, in the claimed subject matter in roller-burnishing, metal is plastically deformed by means of a force. Morishita in combination with Ineson is not seen to add to the teaching of Ineson, because in Morishita, the short-circuit ring (40) at the same time forms the motor housing, while in applicant's claimed invention, the short-circuit ring (15) is located inside the motor housing (13). It is therefore believed that Ineson alone or in combination with Morishita are not seen to anticipate nor teach the claimed invention.

Reconsideration and allowance of the claims are courteously solicited.

Respectfully submitted,



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Appendix 1, changes to the specification with brackets and underlining to show the changes that have been made:

Please replace the paragraph on page 2, lines 2-19 with the following:

-- The drive device of the invention has the advantage over the prior art that production is simplified and thus made less expensive by eliminating the shoulders, which have to be formed separately on the housings, and the loose fastening element. Also eliminated are elements protruding past the outside diameter of the housings, so that the requisite installation space for the drive device is reduced. [The] [roller]Roller-burnishing according to the invention assures an improved introduction of force from the motor housing to the gear housing and a rigid connection between the housings, with a favorable effect on noise produced by the drive device. At the same time, by the large-area, intimate bond between the housings that is attained, an improved heat transfer from the motor housing to the gear housing and thus improved heat dissipation from the motor are attained. Furthermore, the roller-burnished connection brings about good sealing at the transition between the two housings. Roller-burnishing has been set forth in US patent 6,056,263 column 2, line 61 through column 3, line 44, which is incorporated herein by reference. --

Please replace the paragraph on page 5, lines 8-22 with the following:

-- In the exemplary embodiment of Fig. 1, in the slip-on region of the motor housing 13, an annular groove 20 on the one hand and an encompassing radial shoulder 21 on the other, which points away from the motor housing 13, are formed in the gear housing 17. By placing a roller-burnishing tool 30, as shown in Fig. 1 against the motor housing

13 in the region of the annular groove 20, an encompassing annular bead 22 is stamped out of the motor housing 13; it protrudes with positive engagement into the annular groove 20. By placing the roller-burnishing tool 30' against the end portion of the opening edge 131 of the motor housing 13 behind the radial shoulder 21, an inward-bent annular collar 23 is created, which engages the radial shoulder 21 from behind. By means of these two roller-burnishing operations, the motor housing 13 is joined solidly and permanently to the gear housing 17. --

Please replace the paragraph on page 5, line 23 through page 6, line 8 with the following:

-- In the exemplary embodiment of Fig. 2, the annular groove for roller-burnishing in of an annular bead is dispensed with, and instead, an annular rib 24 protruding radially from the outer circumference of the gear housing is machined out of the slip-on region of the motor housing 13 on the gear housing 17, and one annular rib face forms the radial shoulder 21 and the other annular rib face forms an extension of the radial leg face 181 of the chamfer 18. On its opening edge 131 toward the gear housing 17, the motor housing 13 is radially widened, and once the annular collar 23 that engages the radial shoulder 21 from behind has been made by roller-burnishing tool 30', the motor housing is braced on both annular rib faces of the annular rib 24. --

Appendix 2, changes to claims 8-20 indicated with brackets and underlining:

8. (Amended) An electric-motor drive device for auxiliary devices in motor vehicles, such as sliding roofs, window controls, windshield wipers, and the like, having a metal gear housing (17) and a metal cup-shaped motor housing (13) that is slipped with [its] an opening edge (131) onto the gear housing (17) and fixed thereon, the improvement wherein the [motor housing (13), in its slip-on region] slipped-on region of the motor housing (13) that fits over the gear housing (17), is roller-burnished into the gear housing (17).
9. (Amended) The drive device of claim 8, wherein the roller-burnishing is done at two points axially spaced apart from one another with two different roller-burnishing tools.
10. (Amended) The drive device of claim 8, wherein the gear housing (17), in the [slip-on] slipped-on region of the motor housing (13), has an annular groove (20) into which an encompassing annular bead (22), stamped out of the motor housing (13) by the roller-burnishing, protrudes with positive engagement.
11. (Amended) The drive device of claim 8, wherein on the gear housing (17) in the motor housing [slip-on] slipped-on region, an encompassing radial shoulder (21) remote from the motor housing (13) is embodied, which is engaged from behind by an annular collar (23) bent inward from the motor housing (13) by the roller-burnishing.

12. (Amended) The drive device of claim 8, wherein the motor housing (13) encloses a stator (14), which comprises a short-circuit ring (15) and permanent segments (16) secured to it, and that an encompassing, angular chamfer (18) is made by turning into the face end of the gear housing (17) oriented toward the motor housing (13), onto which chamfer the short-circuit ring (15) is slipped with positive engagement until [its] an annular end face of the short-circuit ring (15) meets [the] a radial leg face (181) of the chamfer (18).

13. (Amended) The drive device of claim 11, wherein the gear housing (17), in its motor housing [slip-on] slipped-on region, has an annular rib (24) [protruding] that protrudes radially from the outer circumference, whose annular rib face forms the radial shoulder (21) and [whose other] another annular rib face forms a radial extension of the radial leg face (181) of the chamfer (18).

14. (Amended) The drive device of claim 13, wherein the motor housing (13), on its opening edge (131) oriented toward the gear housing (17), is radially widened and is braced on [both] opposite annular rib faces of the annular rib (24).

15. (Amended) The drive device of claim 9, wherein the gear housing (17), in the [slip-on] slipped-on region of the motor housing (13), has an annular groove (20) into which an encompassing annular bead (22), stamped out of the motor housing (13) by the roller-burnishing, protrudes with positive engagement.

16. (Amended) The drive device of claim 9, wherein on the gear housing (17) in the motor housing [slip-on] slipped-on region, an encompassing radial shoulder (21) remote from the motor housing (13) is embodied, which is engaged from behind by an annular collar (23) bent inward from the motor housing (13) by the roller-burnishing.

17. (Amended) The drive device of claim 10, wherein on the gear housing (17) in the motor housing [slip-on] slipped-on region, an encompassing radial shoulder (21) remote from the motor housing (13) is embodied, which is engaged from behind by an annular collar (23) bent inward from the motor housing (13) by the roller-burnishing.

18. (Amended) The drive device of claim 9, wherein the motor housing (13) encloses a stator (14), which comprises a short-circuit ring (15) and permanent segments (16) secured to it, and that an encompassing, angular chamfer (18) is made by turning into the face end of the gear housing (17) oriented toward the motor housing (13), onto which chamfer the short-circuit ring (15) is slipped with positive engagement until [its] an annular end face meets [the] a radial leg face (181) of the chamfer (18).

19. (Amended) The drive device of claim 10, wherein the motor housing (13) encloses a stator (14), which comprises a short-circuit ring (15) and permanent segments (16) secured to it, and that an encompassing, angular chamfer (18) is made by turning into the face end of the gear housing (17) oriented toward the motor housing (13), onto which chamfer the short-circuit ring (15) is slipped with positive engagement until [its] annular end face meets [the] a radial leg face (181) of the chamfer (18).

20. (Amended) The drive device of claim 11, wherein the motor housing (13) encloses a stator (14), which comprises a short-circuit ring (15) and permanent segments (16) secured to it, and that an encompassing, angular chamfer (18) is made by turning into the face end of the gear housing (17) oriented toward the motor housing (13), onto which chamfer the short-circuit ring (15) is slipped with positive engagement until [its] an annular end face meets [the] a radial leg face (181) of the chamfer (18).